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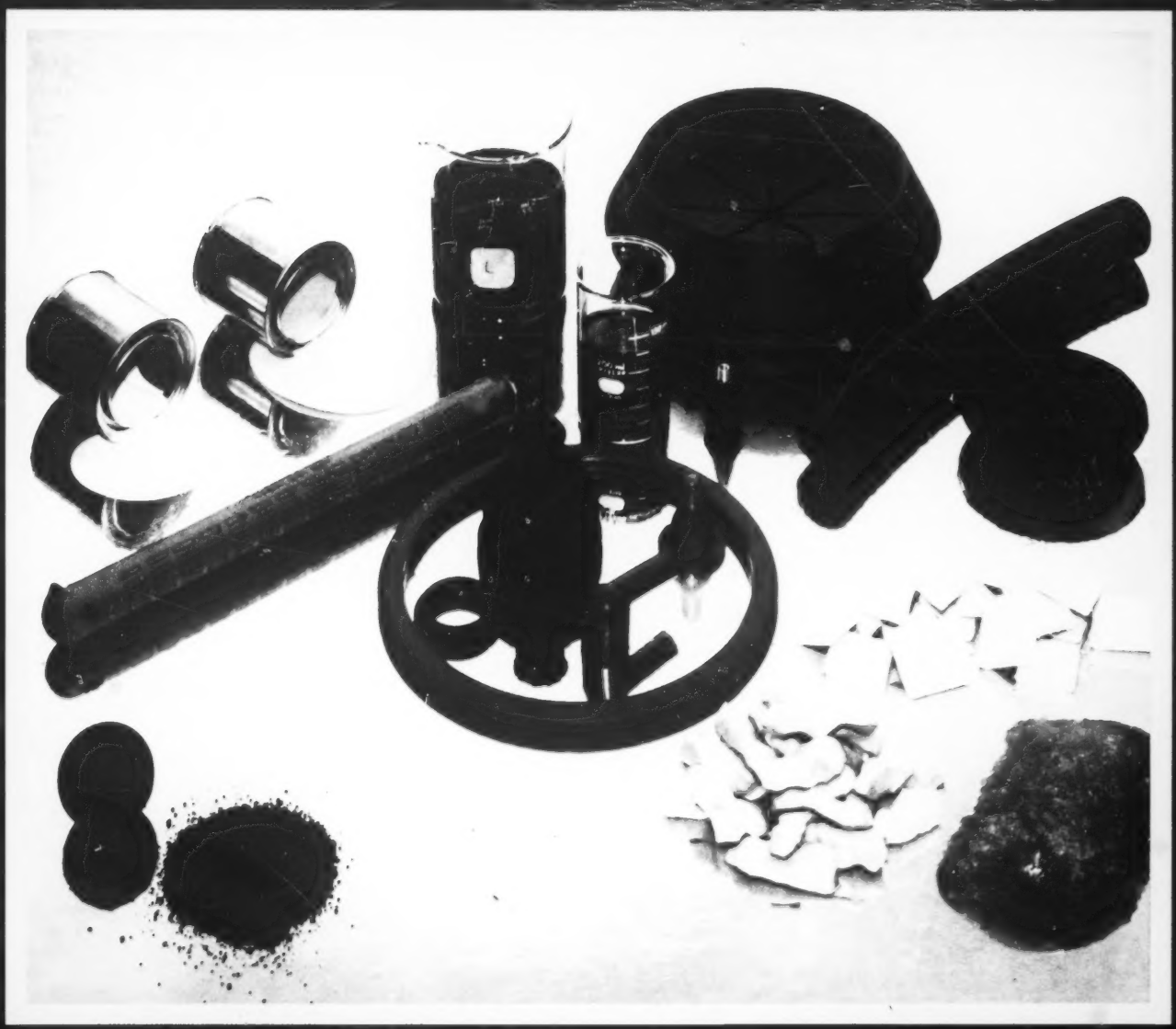
Rubber World

The technical service magazine for the rubber industry Volume 189, No. 5 February 1984

Emphasis on custom mixing



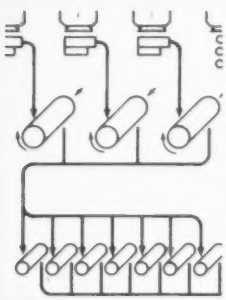
plus: automating mixing plants

intermeshing rotor system

Rubber World

The technical service magazine for the rubber industry

Present trends in custom mixing along with a directory of custom mixers p. 17



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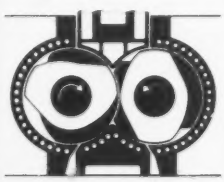
Intermeshing
GK-E rotor system



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Cover

Cover photo courtesy of Polymerics Inc.

A Lippincott & Peto Publication/ Volume 184, No. 5/February 1984

Price changes

Goodyear increased the price of its Versigard rubber membranes in all widths and thicknesses by an average of 8% and the prices for roofing accessories such as sealants, adhesives, flashings, pipe seals, metal fasteners and other items increased an average of 10%.

Uniroyal increased the price for all textile reinforced hydraulic hose by 6%.

Airmac Technology Systems reduced the price of its five cubic foot shot blast deflashing system by 10% and its one cubic foot system by 12%.

Himont USA increased the price of all Pro-fax homopolymer resins by 3¢ a pound and all below list copolymer resin prices will be increased by the same amount. The list price on copolymer blush resistant, medium impact resins will remain at 51¢ lb. in bulk car quantities.

IISRP North American new rubber consumption forecast (all figures in m metric tons)

	1982 Actual	1983	1984	1985	1986	1987	1988
Styrene butadiene-dry	864	902	939	956	969	973	997
Styrene butadiene-latex	87	99	104	107	108	109	114
Polybutadiene	343	364	380	390	401	410	415
Ethylene-propylene	117	139	151	160	169	173	180
Polychloroprene	76	86	92	94	96	98	98
Nitrile-solid	48	51	56	58	60	61	63
Nitrile-latex	6	7	7	7	8	8	8
Other synthetic*	347	314	318	321	329	327	340
Total synthetic	1,888	1,962	2,047	2,093	2,140	2,159	2,215
Natural rubber	734	752	778	792	809	814	832
Total new rubber	2,622	2,714	2,825	2,885	2,949	2,973	3,047
Tire rubber	1,563	1,680	1,748	1,780	1,814	1,826	1,871
Non tire rubber	1,059	1,034	1,076	1,105	1,135	1,147	1,176
% synthetic	72.0	72.3	72.5	72.5	72.6	72.6	72.7
Carboxylated SBR latex	246	287	299	306	306	312	320

*Includes butyl rubber and polyisoprene

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Markets, news

The International Institute of Synthetic Rubber Producers' North American Section said that rubber consumption appears to have recovered significantly in 1983 although final figures will not be available for some time. The group estimates 1983 consumption for all rubber will be pegged around 1,962 million metric tons up from the 1,888 mmt figure of 1982 but still lower than the level achieved in 1968. Projections for rubber demand show a compound annual growth rate of 2.3% which is slightly below the generally accepted GNP projections of 3-4% annually. Because of the longer wearing and smaller tires, the proportion of total rubber used in tires is projected to decline from 61.9% in 1983 to 61.4% in 1988. During this span however, synthetic rubber is expected to in-

RMA industry rubber report through September 1983 (figures are expressed in metric tons)

	Cumulative 1983	Cumulative 1982	% Change 83 vs 82
Total New Rubber			
New rubber available	2,060,549	2,001,560	2.95
Imports	617,076	569,638	8.33
Exports	233,162	248,453	−6.15
Apparent Consumption	1,845,866	1,836,791	.49
Total Natural Rubber			
Imports	483,795	471,622	2.58
Exports	13,764	11,328	21.50
Apparent Consumption	481,750	502,459	−4.12
% Total new rubber	26.09	27.35	
Total Synthetic Rubber			
Production	1,443,473	1,431,922	.81
Imports	133,281	98,016	35.98
Exports	219,398	237,125	−7.48
Apparent Consumption	1,364,116	1,334,331	2.63
% Total new rubber	73.90	72.64	
Total SBR			
Production	661,744	674,237	−1.85
Imports	44,357	40,490	9.55
Exports	62,894	68,248	−7.84
Apparent Consumption	659,939	657,204	.42
Total Nitrile			
Production	39,599	36,364	8.90
Imports	6,965	5,795	20.19
Exports	4,747	4,849	−2.10
Apparent Consumption	42,369	39,640	6.88
Polybutadiene			
Production	238,088	223,310	6.62
Imports	33,670	22,561	49.24
Exports	12,348	10,774	14.61
Apparent Consumption	256,207	242,077	5.84
Ethylene-Propylene			
Production	127,724	99,524	28.33
Imports	515	179	187.71
Exports	23,288	21,822	6.72
Apparent Consumption	103,721	87,967	17.91
Butyl, Polyisoprene, Silicone and other Synthetic Elastomers			
Production	293,581	309,273	−5.07
Imports	43,296	27,948	54.92
Exports	84,753	94,889	−10.68
Apparent Consumption	239,447	252,284	−5.09
Polychloroprene			
Production	82,738	89,214	−7.26
Imports	4,478	1,043	329.34
Exports	31,368	36,543	−14.16
Consumption	62,434	55,160	13.19

crease from 72.3% to 72.7% of the total rubber consumed. A large portion of this strength is expected to be in ethylene-propylene rubber in non-tire applications.

EP/EPDM rubbers along with specialty rubbers are seen as growing above industrial production levels in Western Europe according to the IISRP's European Statistical Committee. In their five year forecast, IISRP says general purpose rubbers are expected to grow at levels below industrial production in Western Europe. The Committee says although the economies of the countries in the region are improving, their figures reflect caution about the robustness of the recovery.

General Tire president Warren Hayford resigned from the company. Chairman of the board, M. G. O'Neil assumed the duties of the president, a title he held before the hiring of Hayford less than two years ago. General's Charlotte, NC tire manufacturing plant is back in operation after a four month strike idled the facility. The new three-year contract's basic provisions are similar to labor agreements negotiated in the past 16 months at General's Waco, TX and Mayfield, KY tire plants.

Production of lead-free zinc oxide increased in October over September to 12,173 metric tons but shipments were down 15%.

A 3-4% increase in the number of U.S. cars and light trucks in 1984, the biggest jump in a decade, will help boost U.S. retail sales of replacement belts and hose to a record $900 million this year according to Goodyear. The growth represents an 8% increase over 1983's mark of $828 million. Unit sales of v-belts and hose will climb about 4-5% this year.

IISRP Western Europe new rubber consumption forecast (all figures in thousand metric tons)

	1982	1983	1984	1988
Styrene butadiene—dry	577	583	588	613
Styrene butadiene—latex	105	106	108	115
Polybutadiene	210	218	222	235
Ethylene-propylene	121	125	127	144
Polychloroprene	82	80	79	76
Nitrile—solid	59	59	60	64
other synthetic*	211	210	212	223
total synthetic	1,377	1,393	1,409	1,483
Natural rubber	806	826	835	865
total new rubber	2,183	2,219	2,244	2,348
% synthetic	63.1	62.8	62.8	63.2
Carboxylated SBR latex	235	248	253	265

*Includes Butyl Rubber and Polyisoprene

The Chemical Manufacturers Association, in its annual economic survey, said industry sales rose 9.6% during 1983 over the year before, to $189 billion, and expects good things for 1984. Sales during 1984 are expected to rise 13% over 1983. Other items from the survey show that capacity utilization should be around 78% in 1984; average operating rate improved to 73% in 1983 from 69% in 1982; there was a 10.8% increase in research and development in 1983; capital expenditures are expected to be increased 10% during 1984 with only 26% of this increase expected to go for new facilities; Exports were $19.8 billion during 1983 nearly equal to 1982; imports rose almost 9% to a projected $10.3 billion and consequently the industry's trade balance slipped 9.4%, the third decline in as many years.

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RW survey shows

Custom mixers optimistic about 1984

By David Given, Technical Editor

There is a mood of optimism when custom mixers talk about 1984. The overriding feeling is that this year will see a definite increase in the volume of rubber mixed by someone other than the fabricator.

Conversations with most of the custom mixers in the U.S. bear out this feeling. "We plan to mix more in '84 than we did in '83 . . . A lot more companies are going out and leaving the responsibility to somebody else for their mixing and prepping . . . I think what we're seeing is an increase in companies going out, even the big companies . . They're all seeming to go outside and have somebody else mix their stock," said William O. Stoufer of the Bearfoot Airway Division, Wadsworth, OH.

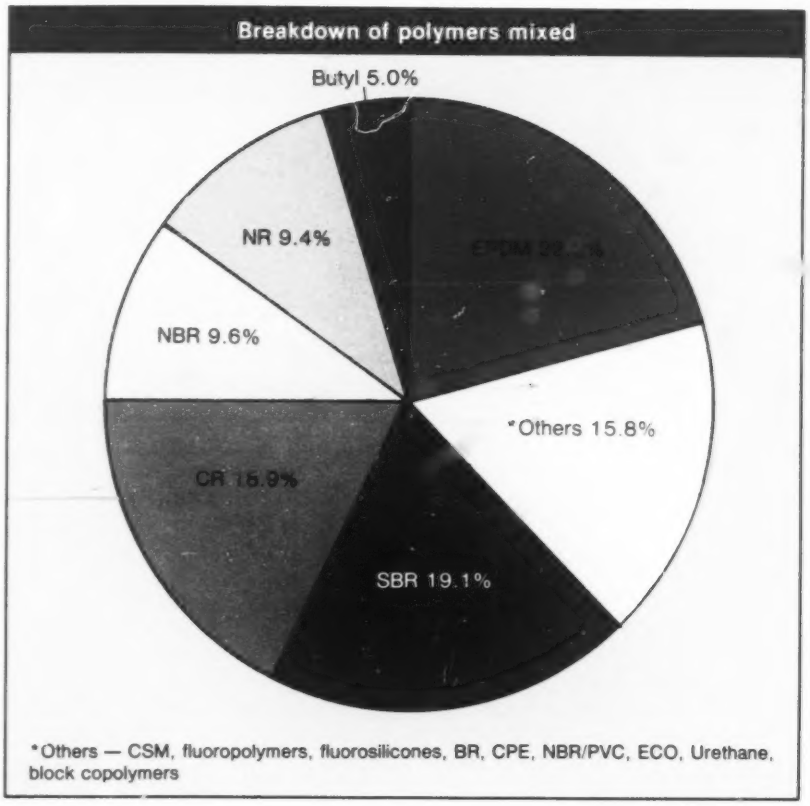
This optimistic mood is further borne out by a recent RW survey of custom mixers. Even with the economic slowdown experienced in the last few years, about 33% of the custom mixers in the U.S. had plant expansions in 1983, while nearly 41% plan to expand their plant capacity in 1984. One of those planning to expand, Bill Randall of Beebe Rubber Co., Nashua, NH, had this to say, "We are looking for even more this year, in fact, we are planning on 1984 being our best year in about six."

Another indication that the custom mixing industry is on the upswing is found in the responses to questions about capacity and volume. The estimated capacity of the industry is approximately 1.378 billion lbs/year. According to RW's estimates, the volume in pounds mixed in 1982 was approximately 860 million pounds, about 62.4% of the estimated capacity. In 1983 the estimated volume was 1.01 billion pounds, 73.3% of the estimated capacity reflecting a 17.4% increase in volume over 1982. This underuse of the available capacity coupled with the fact that over one-third of the custom mixers are planning to expand is a good indication that 1984 will be a good one for the custom mixing industry.

A breakdown of the polymers mixed by custom mixers on a percentage basis reflects the growth of ethylene propylene rubbers in the single ply roofing market, wire and cable insulation and jacketing, hose, seals and gaskets. EPDM led the list with 22.2% of the total. This amounted to about 224 million pounds in 1983. The next most frequently mixed polymer was the general purpose workhorse, SBR, with approximately 19.1% of the total, or 192.9 million pounds. Chloroprene (CR) was third with 18.9% or about 191 million pounds. The amount of nitrile rubber (NBR) mixed was 97 million pounds or about 9.6% of the total. Natural rubber (NR) amounted to 95 million pounds in 1983, or about 9.4% of the total. The remaining 159.6 million pounds that were mixed in 1983 were categorized as others and amounted to 15.8% of the total. Others included some of the more exotic polymers such as fluoroelastomers, silicones, fluorosilicones, epichlorohydrin (ECO), and chlorosulfonated polyethylene (CSM). Other better known polymers that were mixed in small quantities included butadiene rubber (BR), chlorinated polyethylene (CPE), urethanes, block copolymers and nitrile/polyvinyl chloride (NBR/PVC).

> ***"We are looking for even more this year, in fact, we are planning on 1984 being our best year in about six years."***
>
> **Beebe's Randall**

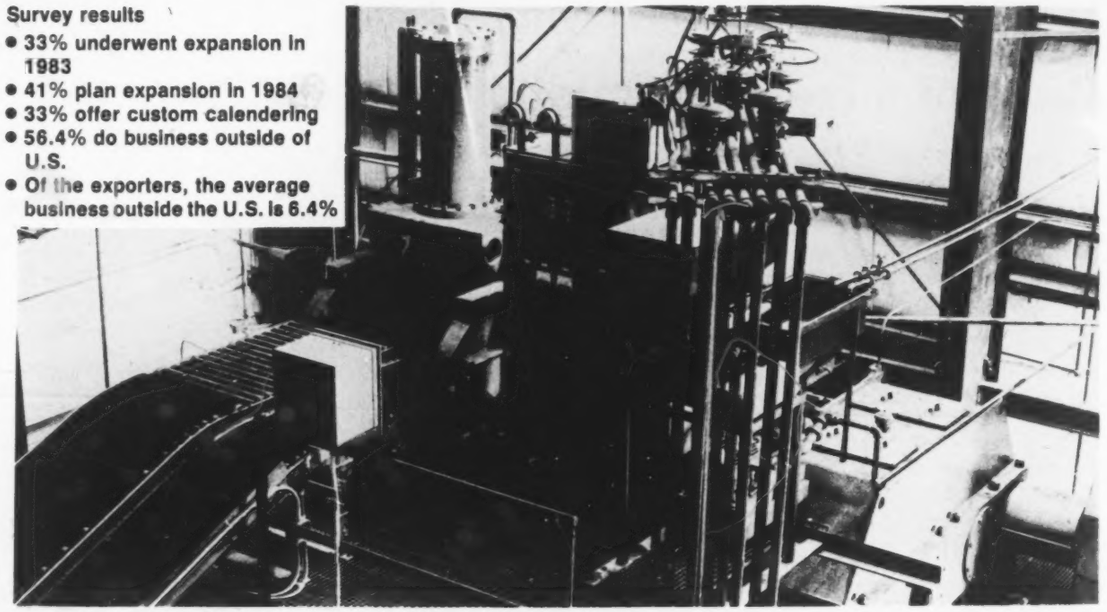
A growing segment of the industry is the silicone, fluorosilicone, and fluoroelastomer mixer. These polymers are relatively expensive and are generally difficult to mix. Many custom mixers will not usually mix them because of these factors and the small amounts that a fabricator may require at any one time. One of the major custom mixers said, "We are a little leery of some of the fluoroelastomers . . . we mix only at the customer's responsibility, he has to have someone here." There are three custom mixers that mix silicone exclusively. They are: Depco Inc., Brentwood, NY; J-Sil Division of Jamak, Weatherford, TX; and Laur Silicone



*Others — CSM, fluoropolymers, fluorosilicones, BR, CPE, NBR/PVC, ECO, Urethane, block copolymers

Survey results

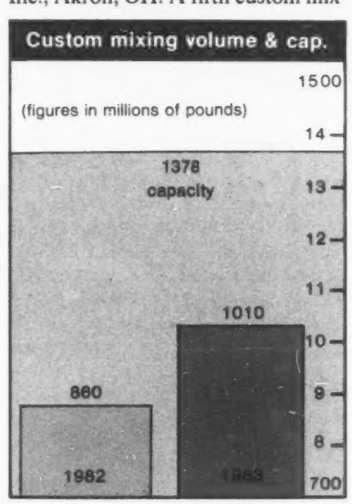
- **33% underwent expansion in 1983**
- **41% plan expansion in 1984**
- **33% offer custom calendering**
- **56.4% do business outside of U.S.**
- **Of the exporters, the average business outside the U.S. is 6.4%**



Rubber Compounding, Inc., Beaverton, MI. Two others mix only fluoroelastomers and fluorosilicones. They are: ChemRite, Inc., W. Hanover, MA and Eagle Elastomer, Stow, OH. Neil McHale of Eagle Elastomer told us, "We mix, calender, and extrude fluoroelastomers and other specialty elastomers requiring special processing or handling techniques. Although we calender and extrude various specialty polymers, our custom mixing operation is mainly set up for mixing fluoroelastomers. Our normal batch size is only 60 pounds which gives us good control and consistent uniformity when handling these difficult polymers."

Thirteen or 33.3% said that they also did custom calendering. According to E.D. Gordon of Rubber Mixing Industries of Wooster, OH, "about 90% of the material that we mix goes to the calender." L.G. Parasson of Master Processing Corporation, Long Beach, CA said "we do most all types of calendering: calendering fabric, frictioning, skimming fabric. We manufacture a line of tank lining compounds, and we specialize in roll covers."

More than half, 56.4% of the custom mixers, said that they did some exporting. Most of these did less than 5% of their business in foreign countries. One mixer cited the lower cost of labor in some of the countries for his lack of foreign business. Only four mixers did an appreciable amount of export business. They are: Adcoat Inc., Placentia, CA; Graphic Arts Rubber, Inc., Akron, OH; Lloyd Manufacturing Company, Inc., Warren, RI; and Rainbow Mastermixing Inc., Akron, OH. A fifth custom mixer with a sizable portion of its business overseas is the J-Sil Division of Jamak in Weatherford, TX. J-Sil has a manufacturing unit in Manchester, England. S.F. "Shorty" Long, president of J-Sil told RW that they were looking for a silicone gum source in 1978 and ended up with a silicone custom mixing plant. In talks with ICI J-Sil learned that ICI wanted to get out of the custom mixing business. This desire gave J-Sil the opportunity to become the only international custom mixer in the industry.



They acquired ICI's custom mixing business, technology, key people and customers with the stipulation that they follow ICI's practices to the letter. J-Sil did not lose a single customer in the transfer and has been very successful in the United Kingdom. They presently have 35 to 40% of the silicone business in the U.K. About 85% of their total business is in the U.K. with 15% in Europe. Serving the automotive, appliances, medical and general electrical markets. At this time no one has followed J-Sil's lead in establishing foreign manufacturing capability. The outlook is excellent for both their U.K. business and their domestic business as well.

Custom mixers

The following directory lists the custom mixers along with plant locations, equipment, mixing capabilities and capacity. A map showing locations appears on pages 22 and 23.

Hugh Muller
President
Sheldon Weinstein
Vice President
Adcoat Inc.
172 E. La Jolla St.
Placentia, CA 92670
(714) 630-7311
Equipment: 5 high speed dispersion mixers, 10 low speed mixers
Mixing capabilities: all solvent soluble resins and polymers
Capacity: 12 million lbs/year

S. Pahuja
Gen. Mgr.
Alloy Polymers, an Inco Co.
145 Hopper Ave.
Waldwick, NJ 07463
(201) 447-6172
Branch
Alloy Polymers
3155 W. Big Beaver Road
(Suite 205)
Troy, MI 48084
(313) 626-5162
Equipment: 2 lines-Werner & Pfleiderer Twin Screw High Intensity Mixers
Mixing capabilities: Specialize in engineering polymers
Capacity: 10 million lbs/year

Glenn Stephens
Sales Mgr.
Associated Rubber Co.
Spring St.
P.O. Box 245
Tallapoosa, GA 30176
(404) 574-2321
Equipment: 3 #11 Banburies
Mixing capabilities: SBR, NR, NBR; CR, ECO, CSM, EPDM, IIR, CIIR, Fluoroelastomers
Capacity: 18 million lbs/year

Anthony Chiulli
Operations Manager
Mark F. Chase
Factory Manager
Frank B. Smith
Sales Manager
Avon Custom Mixing Services Division Chase & Sons Inc.
55 High St.
Holbrook, MA 02343
(617) 767-0511

Equipment: 2 #11 Banburies, #3 Banbury, 8 mills (84", 60", 48"), 6 calenders
Mixing capabilities: all elastomers including silicone
Capacity: 10 millions lbs/year

W.O. Stoufer
General Sales Mgr.
Bearfoot Airway Division
Bearfoot Corp.
First & Water Sts.
Wadsworth, OH 44281
(216) 335-2581
District Sales Office
Bob Kross
404 Northland Towers W.
15565 Northland Dr.
Southland, MI 48075
Equipment: 3 #11 Banburies (1 pelletizer), 3 calenders, 4-84" mills, 3-60" mills, 2 tubers, Cameron 56" slitter
Mixing capabilities: SBR, NBR, CR, BR, IIR, NR, Non-black, Adhesives, specialize in butyl mixing
Capacity: 20 to 25 million lbs/year

Bill Randall
Technical Director
Beebe Rubber Co.
20 Marshall St.
Nashua, NH 03061
(603) 883-5576
Equipment: #3A Banbury, 2 #11 Banburies, 5 mills (60 to 84")
Mixing capabilities: NR, CR, IIR, SBR, NBR, CSM, Polysulfide, all others except silicone
Capacity: 90 million lbs/year

David W. Mohr
VP Sales
Burton Rubber Processing Inc.
14330 Kinsman Rd.
Burton, OH 44201
(216) 834-4644
Branch
P.O. Box 377
Highway 34
Jonesboro, TN 37659
Equipment: 2 #11D Banburies, F270 Banbury, F370 Banbury, 4-60" mills
Mixing capabilities: all synthetic and natural rubber excluding latex, silicones and fluoroelastomers, alloys of plastics/rubber and color concentrates, PVC/NBR blends
Capacity: 50 to 80 million lbs/year

Dick Mastromatteo
Owner
Ernest Morrisey
General Manager
ChemRite, Inc.
P.O. Box 1052
149 King St.
W. Hanover, MA 02339
(617) 878-5300
Equipment: 2 #3A Banburies, 3-60" mills, 84" mill, 8½" extruder/strainer, 3 refiners
Mixing capabilities: fluoropolymers and fluorosilicones
Capacity: 2 million lbs/year

Jim Carver
VP Sales
Colonial Rubber Works
150 South Connell Ave.
Dyersburg, TN 38024
(901) 285-4353
Branch
P.O. Box 640
Kingstree, SC 29556
Equipment: 2 #27 Banburies, 3 #12 Stewart Bolling, 6 #10 Stewart Bolling, 4 calenders (3-60", 1-66")
Mixing capabilities: all except fluoroelastomers
Capacity: 250 million lbs/year

Doug Brown
Gen. Mgr.
Container Corporation of America Heisler Compounding Division
P.O. Box 1648
1204 E. 12th Street
Wilmington, DE 19898
(302) 573-2550
Equipment: 2 #4 Stewart Bolling, #10 Stewart Bolling, 6" cold feed extruder with each mixer
Mixing capabilities: Plastic resins, IIR, EPDM, EPR, NBR, SBR, general polyolefins, non-black
Capacity: 70 million lbs/year

David Bean
President
Depco Inc.
36 Grand Blvd.
Brentwood, NY 11717
(516) 231-1610
Equipment: 2 mills (40" and 45")
Mixing capabilities: exclusively silicone
Capacity: One million lbs/year

Neil McHale
Director of Sales
Eagle Elastomer
4646 Darrow Rd.
Stow, OH 44224
(216) 688-7070
Equipment: 36" special mill, 60" calender, 2½" extruder
Mixing capabilities: fluoroelastomers and fluorosilicones
Capacity: 1.25 million lbs/year

L. Raymond Olson
President
Gayson Inc.
P.O. Box 222
Ringwood, NJ 07456
(201) 728-8100
Equipment: Banbury, 2 2-roll mills, 3 3-roll mills
Mixing capabilities: silicone, specialty colors
Capacity: not available.

Fred Williams
President
Global Processing Co.
11831 Wakeman St.
Santa Fe Springs, CA 90670
(213) 945-1241
Equipment: #4 Banbury, 2 mills (60" & 50")
Mixing capabilities: All types except silicone, specialize in fluoroelastomers
Capacity: 5 million pounds/year.

Jim Bedell
Sales Manager
Graphic Arts Rubber, Inc.
467 Dan Street
Akron, OH 44310
(216) 253-0731
Equipment: 3-60" mills
Mixing capabilities: all-no free black
Capacity: Two million lbs/year

Jack Williams
VP & Gen. Mgr.
Hoover-Hanes
Pequanoc Dr.
Tallapoosa, GA 30176
(404) 574-2341
Equipment: #11 Banbury, #9 Banbury, 84" mill, 100" mill
Mixing capabilities: all grades of soft and hard rubber
Capacity: 30 million lbs/year

S.F. Long
President
J-Sil
Division of Jamak
1400 North Bowie Drive
Weatherford, TX 76086
(817) 594-0263

Branch
J-Sil East
169 Progress Dr.
Manchester, CT 06040
(203) 761-5509
J-Sil Midwest
County Roads 100 E and 800 N
Brimfield, IN 46720
(219) 761-3271

Equipment: #9A Banbury, 4-300 gal Z-Blade mixers, 100 gal Z-blade mixer, 20 gal Z-blade mixer, 12 mills (20 to 84"), 3-8" extruders, 4-5" extruders, 3 Barwells
Mixing capabilities: exclusively silicone
Capacity: 12 million lbs/year

Victor E. Nunan
VP & Gen. Mgr.
J-Von
Division of Jones & Vining
25 Litchfield St.
Leominister, MA 01453
(617) 537-4721
Equipment: 2½" single screw extruder, 4½" single screw extruder, 67mm twin screw extruder, 110mm twin screw extruder
Mixing capabilities: styrenic block copolymers, thermoplastic elastomers
Capacity: 12 million lbs/year

Dan Laur—VP
Laur Silicone Rubber Compounding, Inc.
4930 S. M-18
P.O. Box 509
Beaverton, MI 48612
(517) 435-7706
Equipment: 24" mill, 60" mill, 10 gal & 150 gal double arm mixers, preforming strainers
Mixing capabilities: exclusively silicone
Capacity: One million lbs/year

Harry Moorachian
Sales Manager
Lloyd Manufacturing Company, Inc.
A Subsidiary of TransTechnology Corporation
P.O. Box 347
130 Franklin Street
Warren, RI 02885
(800) 556-9326
In RI (401) 245-6603
Equipment: 4 roll Z calender, #3A Banbury, 100" mill, 5-60" mills
Mixing capabilities: Principally calendering
Capacity: 5 to 6 million lbs/year

R. Joe Dunnam
Director Custom Mixing
Long Mile Rubber — Flexmix Div.
P.O. Box 45228
Dallas, TX 75245
(214) 350-7851
Equipment: #4 Banbury + 6" extruder, #9 Banbury, 2 #11 Banburies, 2-260A Skinners, 60" mill, 3-8" hot-feed extruders, 2-10" extruders
Capacity: Not available.

Edward M. Echan
General Manager
Mach-1 Compounding
Division of Burton Rubber Processing Inc.
775 E. Highland Rd.
Macedonia, OH 44056
(216) 467-8109
Equipment: #3D Banbury, Henschel, ribbon blender
Mixing capabilities: thermoplastic, thermoset, thermoplastic elastomer, alloys
Capacity: 12 million lbs/year

L.G. Parasson
Sales & Marketing
Master Processing Corp.
2500 Thompson St.
P.O. Box 740
Long Beach, CA 90801
(213) 531-3880

Branch
Muscatine, IA
(319) 262-2505
Equipment: #11 Banbury, 3 #12 Stewart Bolling, #10 Stewart Bolling, 3-66" calenders, 60" calender, 7 mills (60", 66", 84")
Mixing capabilities: all of the solids
Capacity: 195 million lbs/year

Harold Jessop
General Manager
Midwest Rubber Reclaiming Co.
745 Norton Ave.
P.O. Box 270
Barberton, OH 44203
(216) 753-5056
Equipment: #11 Banbury, Shaw K-7, #12 Stewart Bolling
Mixing capabilities: all polymers
Capacity: 60 million lbs/year

H.L. Gaynor
VP
H. Muehlstein & Co., Inc.
3296 W. Market St.
P.O. Box 5402
Akron, OH 44313
(216) 836-9131
Equipment: #27 Banbury
Mixing capabilities: complete master-batch mixing services
Capacity: 12 million lbs/year

Dale Meyering
Customer Service Mgr.
Newbern Rubber, Inc.
P.O. Box 277
Hwy 77 East
Newbern, TN 38059
(901) 627-2531
Equipment: F270 Banbury
Mixing capabilities: NR, EPDM, SBR, NBR, CR, CSM, ECO, BR
Capacity: 30 million lbs/year

W.H. Phillips
Treasurer
Paeco Rubber Co.
225 W. Lake St.
P.O. Box 472
(216) 673-4100
Equipment: #10 Stewart Bolling
Mixing capabilities: all except Viton or silicone
Capacity: 18 to 20 million lbs/year

John Mathey
Passaic Rubber Co.
45 Demerest Dr.
P.O. Box 505
Wayne, NJ 07450
(201) 696-9500
Equipment: #4 Stewart Bolling, 5 mills (60" to 84"), 2-54" cal-

enders, 4″ extruder
Mixing capabilities: all polymers except polysulfide
Capacity: 3 million lbs/year

Bruce G. Pelham
VP Sales
Pelmor Laboratories Inc.
401 Lafayette St.
P.O. Box 309
Newtown, PA 18940
(215) 968-3334
Equipment: #1A Banbury, 3 mills (18″, 40″, 60″)
Mixing capabilities: generally all types, specializing in Viton
Capacity: One million lbs/year

Arthur P. Reis
Gen. Mgr.
Pilgrim Custom Mixing Corp.
84 Water St.
P.O. Box 2573
Fall River, MA 02722
(617) 675-0181
Equipment: 3 #11 Banburies, 2-60″ mills, 3-84″ mills
Mixing capabilities: all general purpose polymers
Capacity: 13 million lbs/year

Dave Topliff
Production Mgr.
Polymerics, Inc.
2828 Second St.
Cuyahoga Falls, OH 44221
(216) 928-2210
Equipment: #9 Banbury, 60″ mill, 84″ mill
Capacity: 12 million lbs/year

T.C. Green
Corporate Offices General Manager
R.W. Houkom
Marketing Manager
Polysar Rubber Services Division of Polysar Inc.
2603 W. Market St.
Akron, OH 44313
(216) 836-0451
Regional Plant Locations:
Joe Falanga
Site Manager
1020 Lambert St.
Barberton, OH 44203
(216) 745-1184
Eric Haddon
Site Manager
Colonial Oaks Ind. Park
P.O. Box 327
East Brunswick, NJ 08816
(201) 257-9600
Charles McKeag
Site Manager
1038 Evans Ave.
Akron, OH 44305
(216) 630-9460
Equipment: 2 #4 Banburies, 2 #11 Banburies, #12 Banbury, 2 F270 Banburies
Mixing capabilities: most organic rubbers and thermoplastics, silicone, separate black and non-black facilities
Capacity: approx. 100 million lbs/year

James Inga
President
R&S Processing Co., Inc.
15712 Illinois Ave.
P.O. Box 985
Paramount, CA 90723
(213) 531-1403
Equipment: #9 Banbury (black), #4 Stewart Bolling (colors)
Mixing capabilities: NR, IR, SBR, IIR, EPDM, ECO, CR, Urethane, Polysulfide, Viton, NBR
Capacity: 12 million lbs/year

Daniel R. Unk
President
Rainbow Mastermixing Inc.
455 Dan St.
Akron, OH 44310
(216) 374-1810
Equipment: 60″ rubber mills, granulators
Mixing capabilities: All. Specializing in colors and fluoroelastomers
Capacity: 1.5 million pounds

Joe Rauh
President
Rauh Rubber Inc.
986 E. Market St.
Akron, OH 44305
(216) 253-2549
(216) 253-5667
Equipment: #11 Banbury, 60″ mill, 84″ mill, Barwell extruder/preformer
Mixing capabilities: NR, SBR, EPDM, NBR, CR, EPR, IIR, ECO
Capacity: 20 million lbs/year

E. David Gordon
Rubber Mixing Industries
1205 E. Bowman St.
Wooster, OH 44691
(216) 264-4091
Equipment: #3A Banbury, #11 Banbury, 68″ 3-roll calender, 66″ 3-roll calender, 66″ 4-roll offset calender
Mixing capabilities: NBR, SBR, EPDM, CSM, CR, IIR, custom calendering
Capacity: 20 million lbs/year

1-Adcoat Inc.
2-Alloy Polymers
3-Associated Rubber
4-Avon Custom Mixing
5-Bearfoot Airway
6-Beebe Rubber
7-Burton Rubber Processing
8-ChemRite, Inc.
9-Colonial Rubber Works
10-Container Corporation of America
11-Depco Inc.
12-Eagle Elastomer
12a-Gayson, Inc.
12b-Global Processing
13-Graphic Arts Rubber
14-Hoover-Hanes
15-J-Sil
16-J-Von
17-Laur Silicone Rubber Compounding
18-Lloyd Manufacturing Company
19-Long Mile Rubber
20-Mach-1 Compounding

John P. Davis
S&D Rubber Co.
King Street
W. Hanover, MA 02339
(617) 878-2626
Equipment: #3A Banbury, 3 #9 Banburies, 2 extruders (4″ & 8″), 2 mills (60″ & 84″)
Mixing capabilities: all polymers
Capacity: 20 million lbs/year

Marty Sheridan
General Manager
Star-Glo Industries

2 Carlton Ave.
East Rutherford, NJ 07073
(201) 939-6162
Equipment: 2 #3A Banburies, 2-66" calenders
Mixing capabilities: NR, SBR, CIS-BR, NBR, CR, IIR, EPDM, CSM, ACM, Urethane, Norsorex, Fluoroelastomers, silicone
Capacity: 3 million lbs/year

Marc Witt
Vice President
Technical Rubber & Plastics Corp.
180 Getty Ave.
Clifton, NJ 07015
(201) 546-0700
Equipment: #3A Banbury
Mixing capabilities: SBR, NR, EPDM, CSM, CR, Viton, Silicone, Urethane, Polysulfide
Capacity: 20 million lbs/year

Bill Bryant
VP Sales
Valley Processing
491 Wilson Way
Industry, CA 91744
(213) 961-0311
Equipment: #3A Banbury, 2 #11 Banburies, 68" 4-roll calender
Mixing capabilities: SBR, CR, NBR, EPDM, IIR, NR, CSM, BR
Capacity: 38 million lbs/year

Arun Shah
Vice President R&D
West American Rubber Co.
750 North Main St.
Orange, CA 92668
(714) 532-3355
Equipment: #3A & #11 Banburies
Mixing capabilities: all solid polymers
Capacity: 25 to 30 million lbs/year